

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 94-ANE-08-AD; Amendment 39-13256; AD 2003-16-03]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arriel 1 Series Turboshift Engines; Correction

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This document makes a correction to Airworthiness Directive (AD) 2003-16-03 applicable to Turbomeca Arriel 1 Series turboshaft engines that was published in the Federal Register on August 8, 2003 (68 FR 47208). Turbomeca Arriel turboshaft engine 1 C1 was omitted from the Applicability. This document corrects that omission. In all other respects, the original document remains the same.

EFFECTIVE DATE: Effective September 18, 2003.

FOR FURTHER INFORMATION CONTACT: Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7751; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A final rule AD, FR Doc. 03-19836, applicable to Turbomeca Arriel 1 Series turboshaft engines, was published in the Federal Register on August 8, 2003 (68 FR 47208). The following correction is needed:

PART 39—AIRWORTHINESS DIRECTIVES

§ 39.13 [Corrected]

On page 47209, in the third column, in the Applicability Section, the first sentence "This airworthiness directive (AD) applies to Turbomeca turboshaft engine models Arriel 1 A, 1 A1, 1 A2, 1 B, 1 C, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 that have not incorporated modification TU 202" is corrected to read, "This airworthiness directive (AD) applies to Turbomeca turboshaft engine models Arriel 1 A, 1 A1, 1 A2, 1 B, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 that have not incorporated modification TU 202".

Issued in Burlington, MA, on September 11, 2003.
Francis A. Favara,
Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 03-23816 Filed 9-17-03; 8:45 am]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 94-ANE-08-AD; Amendment 39-13256; AD 2003-16-03]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arriel 1 Series Turboshift Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) that applies to Turbomeca Arriel 1A, 1 A1, 1 A2, 1 B, 1 C, 1 C1, 1 C2, 1 D, and 1 D1 turboshift engines. That AD currently requires repetitive checks for engine rubbing noise during gas generator rundown following engine shutdown, and for free rotation of the gas generator by rotating the compressor manually after the last flight of the day. In addition, the AD 95-11-01 requires installation of modification TU 202 or TU 197 as terminating action to the repetitive checks. This amendment adds additional engine models to the applicability section, eliminates the installation of modification TU 197 as a terminating action to the repetitive checks, requires additional inspections for engines that have modification TU 197 installed, and requires the replacement of modifications TU 76 and TU 197 with modification TU 202, as a terminating action to the repetitive checks and inspections. This amendment is prompted by a report of an in-flight engine shutdown on an engine that had modification TU 197 installed, and the need to update the modification standard on certain engine models. We are issuing this AD to prevent engine failure due to rubbing of the 2nd stage turbine disk on the 2nd stage turbine nozzle guide vanes, which could result in complete engine failure and damage to the helicopter.

DATES: Effective September 12, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 12, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7751; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 95-11-01, Amendment 39-9235 (60 FR 27023, May 22, 1995), which is applicable to Turbomeca Arriel 1A, 1 A1, 1 A2, 1 B, 1 C, 1 C1, 1 C2, 1 D, and 1 D1 turboshaft engines was published in the Federal Register on March 10, 2003 (68 FR 11342). That action proposed to add additional engine models to the applicability section, to eliminate the installation of modification TU 197 as a terminating action to the repetitive checks, to require additional inspections for engines that have modification TU 197 installed, and to require the replacement of modifications TU 76 and TU 197 with modification TU 202, as a terminating action to the repetitive checks and inspections in accordance with Turbomeca Alert Service Bulletin (ASB) No. A292 72 0150, Update 6, dated September 4, 2000, and Turbomeca ASB No. A292 72 0212, Update 5, dated August 8, 2001. Information that describes procedures for checking for unusual noise during gas generator rundown on engine shutdown and after the last flight of the day may be found in SB No. 292 72 0181, Update 3, dated September 15, 1995.

Addition of Helicopter Model to the Applicability

Since the publication of the NPRM supercedure, 68 FR 11342, dated March 10, 2003, we have learned that these turboshaft engines are also installed on certain Sikorsky S-76 A helicopters. The Sikorsky S-76 A has also been added to the applicability.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Correction in Note 1 to Alternative Methods of Compliance Paragraph Reference

The reference in Note 1 to the alternative methods of compliance paragraph in the regulatory language section is corrected from (k) to (j) in this AD.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-9235 (60 FR 27023, May 22, 1995) and by adding a new airworthiness directive, Amendment 39-13256, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

CORRECTION: [*Federal Register: September 18, 2003 (Volume 68, Number 181); Page 54653; www.access.gpo.gov/su_docs/aces/aces140.html*]

2003-16-03 Turbomeca: Amendment 39-13256. Docket No. 94-ANE-08-AD. Supersedes AD 95-11-01, Amendment 39-9235

Applicability: This airworthiness directive (AD) applies to Turbomeca turboshaft engine models Arriel 1 A, 1 A1, 1 A2, 1 B, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 that have not incorporated modification TU 202. These engines are installed on but not limited to Eurocopter AS-350 B, B1, and B2; SA-365 C, C2, N, N1, and N2; MBB-BK 117 C-1 and C-2, certain Sikorsky S-76 A, certain Sikorsky S-76 C, and Agusta A109 K2 helicopters.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (j) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

To prevent engine failure due to rubbing of the 2nd stage turbine disk on the 2nd stage nozzle guide vanes, which could result in complete engine failure and damage to the helicopter, do the following:

(a) For Turbomeca Arriel 1 A, 1 A1, 1 A2, 1 B, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 turboshaft engines that have incorporated modification TU 202, no further action is required.

(b) For Turbomeca Arriel turboshaft engines Models 1 B, 1 D, or 1 D1 that have modification TU 76 or TU 197 installed, before further flight after the effective date of this AD, replace modification TU 76 or TU 197 with modification TU 202 in accordance with 2.B.(1) through 2.C.(2) of Arriel 1 Alert Service Bulletin (ASB) No. A292 72 0150, Update 6, dated September 4, 2000.

Daily Inspection for Engine Rubbing and Free Rotation

(c) For Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, perform the following daily checks:

- (1) After the last flight of the day or after a ventilation (maximum of 5 seconds), immediately after engine stopping, listen for unusual engine rubbing noise during the gas generator rundown, and
- (2) During the check after the last flight of the day, when the T4 temperature is below 150[deg]C (302[deg]F), perform a ventilation (5 seconds maximum) during gas generator rundown or check for free rotation of the gas generator and unusual noise by turning the compressor by hand.
- (3) If any rubbing noise is heard and the source of the noise cannot be identified, replace module M03.

Initial Borescope Inspection

(d) For Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

- (1) Perform initial borescope inspections for cracks of the second stage nozzle guide vanes (NGV2) in accordance with 2.B.(a) through 2.B.(c)(2) of Turbomeca ASB No. A292 72 0212, Update 5, dated August 8, 2001, and the schedules specified in the following Table 1:

TABLE 1.—INITIAL BORESCOPE INSPECTION

Number of cycles-since-new or overhaul (CSN) on the effective date of this AD.	Initial inspection
(1) Modules M03 with fewer than 1,000 CSN.	Before accumulating 1,100 CSN.
(2) Modules M03 with 1,000 CSN or greater.	Within 100 additional cycles-in-service (CIS) after the effective date of this AD.

- (2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

First Repetitive Borescope Inspection

(e) Thereafter, for Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

- (1) Perform the first repetitive borescope inspection for cracks of the NGV2 in accordance with 2.B.(a) through 2.(c)(2) of Turbomeca ASB No. A292 72 0212, Revision 5, dated August 8, 2001 and the schedules specified in the following Table 2:

TABLE 2.—REPETITIVE BORESCOPE INSPECTIONS

If Module M03 has already been checked	Then repeat inspection
(1) Once, before 900 CSN.	Before 1,100 CSN and then between 1,900 and 2,100 CSN.
(2) Twice, before 900 CSN without propagation of cracks recorded between the first and second check.	Before 1,500 CSN.
(3) Twice, before 900 CSN with propagation of cracks recorded between the first and second check.	Before 1,100 CSN and then between 1,900 and 2,100 CSN.
(4) Once, after 900 CSN.	Between 1,900 and 2,100 CSN.

- (2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

Subsequent Repetitive Borescope Inspection

(f) Thereafter, for Arriel 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1 K, 1 K1, 1 S, and 1 S1 engines with modification TU 197 installed, do the following:

(1) Repeat the borescope inspection of the NGV2 in accordance with 2.B.(a) through 2.B.(c)(2) of Turbomeca ASB No. A292 72 0212, Update 5, dated August 8, 2001 at intervals not to exceed 2,100 cycles-since-last-inspection (CSLI).

(2) If the 2nd stage nozzle guide vanes do not meet the acceptance criteria specified in 2.B.(c)(2) of ASB A292 72 0212, Update 5, dated August 8, 2001, replace module M03.

Replacement of Modification TU 197

(g) For 1 A, 1 A1, 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1K, 1 K1, 1 S, and 1 S1 engines that have modification TU 197 installed, install the improved 2nd stage nozzle guide vanes, modification TU 202 at next shop visit after the effective date of this AD, but not later than December 31, 2006, in accordance with 2.B. through 2.C. of Arriel 1 ASB No. A292 72 0150, Update No. 6, dated September 4, 2000.

Terminating Action

(h) Installation of the improved 2nd stage nozzle guide vane, modification TU202, constitutes terminating action to the checks and inspections required by paragraphs (c)(1), (c)(2), and (d)(1) through (d)(3) of this AD.

(i) The checks required by paragraph (c)(1) and (c)(2) of this AD may be performed by the pilot holding at least a private pilot certificate as an exception to the requirements of part 43 of the Federal Aviation Regulations (14 CFR part 43). The checks must be recorded in accordance with §§ 43.9 and 91.417(a)(2)(v) of the Federal Aviation Regulations (14 CFR 43.9 and 14 CFR 91.417(a)(2)(v)), and the records must be maintained as required by the applicable Federal Aviation Regulation.

Alternative Methods of Compliance

(j) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(k) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated by Reference

(l) The actions must be done in accordance with the following Turbomeca alert service bulletins:

Document No.	Pages	Revision	Date
A292 72 0150	All	6	September 4, 2000.
Total pages: 9			
A292 72 0212	All	5	August 8, 2001.
Total pages: 12			

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00, fax (33) 05 59 64 60 80. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in DGAC airworthiness directive DGAC 98-311 (A) R1, dated October 7, 1998.

Effective Date

(m) This amendment becomes effective on September 12, 2003.

Issued in Burlington, Massachusetts, on July 29, 2003.

Robert G. Mann,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-19836 Filed 8-7-03; 8:45 am]

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